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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/807,964	03/24/2004	Eric C. Stelter	10509	4094

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EXAMINER	
SMITH, RICHARD A	

ART UNIT	PAPER NUMBER
2859	

DATE MAILED: 06/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/807,964	STELTER ET AL.	
	Examiner	Art Unit	
	R. Alexander Smith	2859	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-27 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-27 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 20040324.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless --
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 7, 9-11, 13, 15-18, 20, 22-24 and 26 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. 6,185,383 to Kanari et al.

With respect to "a flow of heat exchange medium": In a broad sense, this limitation is met since electricity is a heat exchange medium when it flows through resistive wires and electrodes.

With respect to "a type of receiver": In a broad sense, receivers of different widths are each a type when type is considered to be a particular kind, class or group; or something distinguishable as a variety (wherein variety is paper, etc. of differing widths).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obvious:sness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 6, 8, 12, 14, 19, 21, 25 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kanari et al. in view of U.S. 2003/0103789 to Boss.

Kanari et al. teaches all that is claimed as discussed in the above rejections of claims 1, 7, 9-11, 13, 15-18, 20, 22-24 and 26 except for the flow rate being proportional to a speed at which the receivers are passed through the fixing system, and the temperature being dependent upon a type of marking material passed through the fixing system.

Boss discloses that a heater can be under dynamic control to accommodate various fuser heat requirements as determined by the type of media, the type of toner, the media speed, etc.(). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the

invention to modify the flow rate and temperature, taught by Kanari et al., to have the flow rate being proportional to a speed at which the receivers are passed through the fixing system, and the temperature being dependent upon a type of marking material passed through the fixing system, as suggested by Boss, in order to accommodate various marking materials and receivers and to assure that the quality of output is acceptable to the user. For example to help prevent smudging or rubbing off of the marking material, to help prevent wrinkling or distortion of the receivers, or to prevent damage to the system.

5. Claims 6, 8, 12, 14, 19, 21, 25 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kanari et al. in view of U.S. 6,271,870 to Jacob et al.

Kanari et al. teaches all that is claimed as discussed in the above rejections of claims 1, 7, 9-11, 13, 15-18, 20, 22-24 and 26 except for the flow rate being proportional to a speed at which the receivers are passed through the fixing system, and the temperature being dependent upon a type of marking material passed through the fixing system.

Jacob et al. discloses that firmware is provided to control or respond to the temperature of the fuser rollers, rate of movement of the receiver, type of media used, the type of toners used and the like (column 3, line 66 through column 4, line 17). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the flow rate and temperature, taught by Kanari et al., to have the flow rate being proportional to a speed at which the receivers are passed through the fixing system, and the temperature being dependent upon a type of marking material passed through the fixing system, as suggested by Boss, in order to

accommodate various marking materials and receivers and to assure that the quality of output is acceptable to the user. For example to help prevent smudging or rubbing off of the marking material, to help prevent wrinkling or distortion of the receivers, or to prevent damage to the system.

6. Claims 1, 3, 4 and 6-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. 4,757,582 to Verkasolo in view of U.S. 6,389,241 to Cernusak et al.

Verkasolo discloses a system and process including a roller having at least a first zone and a second heat zone (any of the F1's or combination thereof as shown), a controller (35) for controlling the flow, at least one return tube (23'), the first and second zones each having at least two supply tubes (any adjacent combination of F1's), the controller comprising a valve (41), the first and second zones being biased toward the receiver (i.e., the F1's are biased toward web W and nip N).

Verkasolo does not disclose the system and process being a fixing system or a fixing process wherein the roller is a fixing roller, fixing marking material to a receiver and claims 6-8, 10-14, 17-21 and 25-27, i.e., the flow rate being proportional to the speed, the temperature being dependent upon the type of receiver, the temperature being dependent upon the type of marking material, the flow being a function of a width of the receiver.

Cernusak et al. discloses a system and process for fixing and discloses a fixing roller employing heat zones (figure 4 and column 9, lines 55-62), fixing marking material to a receiver, and the flow rate being proportional to the speed, the temperature being dependent upon the type

of receiver, the temperature being dependent upon the type of marking material, the flow being a function of a width of the receiver (figures 4, 5 and 7; column 1, line 55 through column 2, line 35; and claim 3).

Verkasolo and Cernusak et al. are analogous in that both disclose heated rollers having zoned heating and which apply pressure on a web or receiver in order to perform an operation to said web or receiver. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system and process, taught by Verkasolo, to include the capability of fixing, of fixing a marking material and to control the various parameters, as suggested by Cernusak et al., in order to increase the uses and versatility of the system and process.

7. Claim 2 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Verkasolo and Cernusak et al. as applied to claims 1, 3, 4 and 6-27 above, and further in view of U.S. 4,282,638 to Christ et al.

Verkasolo and Cernusak et al. together teach all that is claimed as discussed in the above rejections of claims 1, 3, 4 and 6-27 above. Furthermore, Verkasolo discloses a tank (38) with pump (39) and mixing valve (44) on the output side of the roller but does not provide any information as to the use of this tank and its components.

Verkasolo and Cernusak et al. does not disclose the controller comprising a pump and the limitations with respect to claim 2, i.e., at least one supply tube and the first and second zones each having at least two return tubes.

Christ et al. discloses that pumps can be provided on supply tubes and on the return tubes and that a tank is used for storage. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to include pumps, taught by Christ et al., in the control, taught by Verkasolo, in order to provide cold and hot water to the mixing valves, to regulate the pressure for the mixing valves and for the roller, and to reuse the heated tank water to save energy costs.

Christ et al. further discloses a zoned heating system wherein the number of supply tubes and return tubes can be modified. For example, figure 1 has 3 intakes, 1 pressure intake and 1 return line and figure 5 has 3 intakes with 3 return lines. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the arrangement, taught by Verkasolo, to include at least two return lines for each zone, since Christ et al., discloses that the arrangement of tubes can be used in the alternative and since this would allow better control of the heat regulation for each zone by controlling the return for each zone or portion of each zone independently.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure. The prior art cited in PTO-892 and not mentioned above disclose related systems and methods.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to R. Alexander Smith whose telephone number is 571-272-2251. The examiner can normally be reached on Monday through Friday from 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diego F. Gutierrez can be reached on 571-272-2245. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

R. Alexander Smith
Primary Examiner
Technology Center 2800

RAS
June 2, 2005